

Tuan Anh Nguyen

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EDUCATION

- VinUniversity** Hanoi, Vietnam
BSc. in Computer Science; GPA: 3.65 *September 2021 - (Expected) June 2025*

WORK EXPERIENCE

- Information Security Lab, VinUniversity** On-site
Undergraduate Research Assistant *Mar 2023 - Nov 2023*
 - Achieved a \$1000 research grant from VinUni Undergraduate Research grant for a research project on **Implementation of Lightweight Key Exchange on IoT devices**, under supervision of Professor Wong Kok-seng.
 - Conducted experiments on privacy-preserving protocols for including but not limited to Federated Learning & multiparty computation systems, which resulted in 02 on-review research papers.
- College of Engineering & Computer Science, VinUniversity** On-site
Undergraduate Research Assistant *Mar 2023 - Nov 2023*
 - Conducted two independent study courses on Modern Cryptography under Professor Wray Buntine's supervision, with foundational topics of Cryptology.
 - Created "[CryptoBook for n00b1es](#)" - a comprehensive Cryptography notes for beginners how to implement and attack cryptography algorithms.
 - Developed a Twitter Crawler with hashtag/keyword-based tweet crawling & user profile visualization features to analyze Twitter discussions about ChatGPT and other GPT models.
 - Successfully crawled more than one million tweets and more than ten thousand profiles within 01 month.
- Viettel Cyber Security** Hybrid
Vulnerability Research Intern *Aug 2022 - Mar 2023*
 - Achieved distinction among 300+ candidates to secure a position as one of the top 25 interns in the batch, engaging in an intensive 6-month training program focused on mastering Reverse Engineering, Binary Exploitation, and other Exploit Development skills on x86-64 platforms.
 - Achieved the second highest rank out of 25 interns during CTF contests of VCS Academy Team.
- CyberKid Vietnam** Remote
Cybersecurity Instructor *Nov 2022 - Feb 2023*
 - Collaborated with teams to create the syllabus, materials, and labs for a Programming and Cryptography course designed to educate children about Cyber Security.
 - Became the speaker in 03 seminars for young students about basic Cryptography & Exploit Development, which provided education on cybersecurity for 216 high school students.

PROJECT

- VinUni Hacking Club**
Co-founder, President *Mar 2022 - Present*
 - Organizers, DevSecOps Engineer & challenge authors of VinUni CTF - the annual capture-the-flag competition at VinUniversity. Attracted in total more than 150 students from VinUniversity & 07 other universities' computer security clubs.
 - Created an extensive training program which covers from foundational knowledge to advanced topics in cybersecurity for 13 VinUni Hacking Club's members.
 - Contributed to open-source CTFd platform by improving CTFd-Docker-Challenge plugin for managing isolated hacking platform via Docker images via secure TLS connection to Docker daemon, and additional integration Dynamic Value.
 - Contributed write-ups & challenges from VinUni CTF and other CTFs to VinUni Hacking Club GitHub repository
- VinUniversity Medical Dictionary - MedDict**
Backend Developer & DevOps Engineer *Sept 2023 - Present*
 - Adopted & Developing the backend API for VinUniversity Medical Dictionary - MedDict - a project to support VinUniversity's College of Health Sciences students in learning medical terminology.
 - Developed a search engine API & Google Chrome plugin for searching medical terms efficiently with open-source illustration & text-to-speech of the terms, and a admin dashboard for managing the dictionary
 - Frequently used by more than 200 medical students in College of Health Sciences, VinUniversity.
- [my_rust_os](#)**
Developer *July 2023 - October 2023*
 - An educational & hobby Operating System, written in Rust for the course "Course-related Project I" at VinUniversity.
 - Provided a simple file system, terminal-user-interface and some basic utilities, with support of QEMU Emulator.
- RISC-V Interpreter**
Developer *an 2023 - Mar 2023*

ACHIEVEMENTS

- **Top 05 Vietnam Student Representative - Global Cybersecurity Camp 2024**
Issued by VNSecurity Foundation 2024
 - Selected as one of the top 05 Vietnam student representatives to participate in the Global Cybersecurity Camp 2024, an international bootcamp & hackathon about cybersecurity.
- **Finalists, ASEAN Student Contest on Information Security 2023**
Issued by Vietnam Information Security Association 2023
 - Advances to the Final Round of ASEAN Student Contest on Information Security 2023. Ranked in top 25 over more than 100 teams in the competition.
- **Top 0.1% Best CTF Player on CryptoHack**
Issued by CryptoHack.org 2023
 - Ranked in the top 94/100 on CryptoHack, demonstrating familiarity with cryptography algorithms and outstanding problem-solving skills.
- **Dean's List and VinUni Merit-based Scholarship**
Issued by VinUniversity 2020 - 2022
 - For outstanding academic performance and contribution, three consecutive Dean's List awards were received, along with a merit-based scholarship for undergraduate studies covering 90% of tuition fees.

PUBLICATION

- **Towards Efficient Communication and Secure Federated Recommendation System via Low-rank Training**
Ngoc-Hieu Nguyen, Tuan-Anh Nguyen, Tuan Minh Nguyen, Vu Tien Hoang, Dung D. Le, Kok-seng Wong
Accepted for ACM The Web Conference 2024
- **Towards Practical Secure Comparison with Coordinate Encoding Mechanism**
Gia Huy Do Hoang, Thai Hung Nguyen, Tuan-Anh Nguyen, Huy Khiem Le, Kok-seng Wong
On-review of the USENIX Security Symposium 2024